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10/524,600

12/09/2005

Kurt Zubler

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01/27/2009

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EXAMINER

KHARE, ATUL P

ART UNIT

PAPER NUMBER

4191

NOTIFICATION DATE

DELIVERY MODE

01/27/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/524,600 | Applicant(s) ZUBLER, KURT | |
| | Examiner ATUL KHARE | Art Unit 4191 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 5-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>16 May 2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. This is a first office action on the merits.
2. Claims 1-4 were elected by Applicant in the response filed. Applicant's election without traverse of claims 1-4 in the reply filed on January 6, 2009 is acknowledged. Claims 5-12 are withdrawn by applicant.
3. Additionally the preliminary amendment filed 09 December 2005 has been entered and fully considered.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a) because they (figure 6) fails to show the arrow as described in paragraph 0029 of the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after

Art Unit: 4191

the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Items 61 and 62 in figure 6a. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities: Applicant uses the phrase “pressing a pressed ceramic object” (abstract, and paragraph 0001). In fact, a pressed ceramic object has already been pressed. Applicant has made no

Art Unit: 4191

indication of the desire to seek protection over further pressing a ceramic object that has already been pressed. Applicant describes pressing a ceramic object only once during the pressing step (see paragraph 0002 of the disclosure). For further examination, examiner interprets the phrase “pressing a pressed ceramic object” to be either “pressing to make a pressed ceramic object” or “pressing a ceramic object”.

5. The disclosure is objected to because of the following informalities: At paragraph 0007, the second sentence beginning with “After the ceramic compound...” is missing the word “the” prior to the word “muffle”, after the third comma of the sentence.

Appropriate correction is required.

Claim Objections

6. Claim 1 objected to because of the following informalities: Incorrect punctuation was used at the end of the claim (a comma instead of a period). Appropriate correction is required.

7. In addition, with regard to claim 1, applicant uses the phrase “pressing a pressed ceramic object” to mean either “pressing to make a pressed ceramic object” or “pressing a ceramic object” (see objection to the specification above). In order to further examine the claims, examiner interprets the phrase to be either “pressing to make a pressed ceramic object” or “pressing a ceramic object”.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 4191

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over

SCHWEIGER ET AL. (US 5,968,856) in view of SHOUDY (US 1,834,353).

11. With regard to claim 1, the method for the production of pressed ceramics in the field of dental technology comprising providing a muffle, introducing the muffle into a ceramic press furnace, heating a ceramic pellet, and pressing [to make] a pressed ceramic object, is taught by SCHWEIGER whereby there is described at column 4 lines 41-45 a ceramic blank (also called a pellet), which is used to produce a final dental product (column 5 lines 1-3) through a process of heating and subsequent pressing in a pressing furnace (column 5 lines 6-15). SCHWEIGER further describes a ceramic cylinder element (column 5 lines 19-23), which is an integral part of the (ceramic) pressing furnace. SCHWEIGER also describes an investment material (muffle) at column 5 lines 27--37, which at column 6 lines 59-63, is described as being put into the pressing furnace.

SCHWEIGER does not appear to explicitly disclose the muffle having a free space which is transparent to thermal radiation in a floor region thereof. However,

Art Unit: 4191

SHOUDY discloses at page 3 lines 68-71 an investment material (muffle) which, as described at page 2 lines 18-37, in a floor region thereof has an air ingress opening (free space) allowing for the transfer of hot air, thereby being transparent to thermal radiation (see figure 1, and page 4 lines 64-70 of SHOUDY).

At the time of the invention, it would have been *prima facie* obvious to one of ordinary skill in the art to modify the method of SCHWEIGER to include the air ingress opening (free space) of SHOUDY because of the established need in the art to have a free space allowing for the transfer of hot air, thereby being transparent to thermal radiation (see figure 1, and page 4 lines 64-70 of SHOUDY).

12. With regard to claim 2, SHOUDY teaches the implementation of an air ingress opening (page 2 lines 18-37) along with an investment material (muffle) at page 3 lines 68-71. SHOUDY does not teach any time distinction between the implementation of the air ingress opening and the production of the muffle. Therefore, it can be assumed that in the depiction that he presents, the air ingress opening can be implemented, or put into place, "during" the production of the investment material.

13. With regard to claim 3, applicant defines stand feet at paragraph 0009 to be small contact areas with the muffle, and at paragraph 0022 as being provided to form the free space between the floor of the press muffle and the press plate. At paragraph 0026, applicant depicts the press plate, seen in figure 5, as being a support means for which the muffle is centered upon while inside the press furnace. At page 2 lines 18-37 of SHOUDY, an investment support is described which acts in the same way as the stand feet, as defined by applicant. The investment support is in contact (thereby

Art Unit: 4191

bordering) with the air ingress opening (also see figure 1 of SHOUDY). The investment support, which provides a free space between the floor of the press muffle and the floor region of the furnace, is also in contact with the investment material (muffle), thereby providing a “contact area” with it. According to figure 1 of SHOUDY, the investment support is implemented (or put in place) in one piece with the investment material (see figure 1 of SHOUDY).

At the time of the invention, it would have been *prima facie* obvious to one of ordinary skill in the art to modify the combined method of SCHWEIGER and SHOUDY to include the investment support (stand feet) of SHOUDY because of the established need in the art to provide a support material that aids in creating a free space allowing for the transfer of hot air, thereby being transparent to thermal radiation (see page 2 lines 18-37, and page 4 lines 64-70 of SHOUDY).

14. With regard to claim 4, applicant depicts the press plate at paragraph 0026 (shown in figure 5) as being a support means for which the muffle is centered upon while inside the press furnace. SCHWEIGER teaches beginning at column 6 lines 64-67, and continuing to column 7 lines 1-4, a lower part (see item 22 of figure 6) onto which the flask, item 5, which contains the investment material, or muffle, (item 6 – see column 6 lines 59-63) is placed onto and centered upon. This “lower part” acts as a support means for the investment material while inside the furnace (see figure 6).

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ATUL KHARE whose telephone number is (571)270-

Art Unit: 4191

7608. The examiner can normally be reached on Monday-Thursday 7:30 a.m. - 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Barbara Gilliam can be reached on (571)272-1330. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ATUL KHARE/
Examiner, Art Unit 4191

/Barbara L. Gilliam/
Supervisory Patent Examiner, Art Unit 4191